OPTIMIX

2G 40-220
2G 40-305
2G 90-330
2G 90-460
2G 110-330
2G 110-460
2G 150-460

Application

Submersible motor
Dry matter content up to 12 %
Substrate temperature up to 131 F
pH-value 6.5 - 8.2

Motor

Motor power: 5.5 / 12 / 15 / 20 hp, 60Hz
Protection class IP 68, up to 33 ft submergence
PTC thermistors for thermal protection
Own oil circulation, turbine oil

Gear

Flange mounted planetary gear,
reduction ratio i = 3.83 / 5.25
Own oil circulation, longlife gear oil
Change oil after 10,000 operating hours
or 4,000 operating hours for 2G 150 - 460

Corrosion protection

Ductile cast iron housing (GGG40)
Agitator has a two component epoxy coating
Agitator is galvanically isolated from the guide mast

Electric Cable

Pressed-on cable gland, Standard length 33 ft
Cable 7 x 4 + 4 x 1,5 mm², Ø 0.8 in
Resistant against biomass
Strain relief 180 lbf

Propeller

3-blade high efficiency propeller, dynamically balanced

Optimix 2G	5.5 hp	propeller HD+ 640	220 rpm
Optimix 2G	5.5 hp	propeller HD+ 540	305 rpm
Optimix 2G	12.0 hp	propeller HD+ 640	330 rpm
Optimix 2G	12.0 hp	propeller HD+ 500	460 rpm
Optimix 2G	15.0 hp	propeller HD+ 700	330 rpm
Optimix 2G	15.0 hp	propeller HD+ 540	460 rpm
Optimix 2G	20.0 hp	propeller HD+ 580	460 rpm

Hardened steel, ss304 or galvanized

Guide mast connection

Guide mast support with 4 rollers for smooth height adjustment:
for 5.5 / 12.0 hp: 3.2 / 3.9 / 4.7 in square mast
for 15 /20 hp: 3.9 / 4.7 / 5.9 in square mast

Bearing

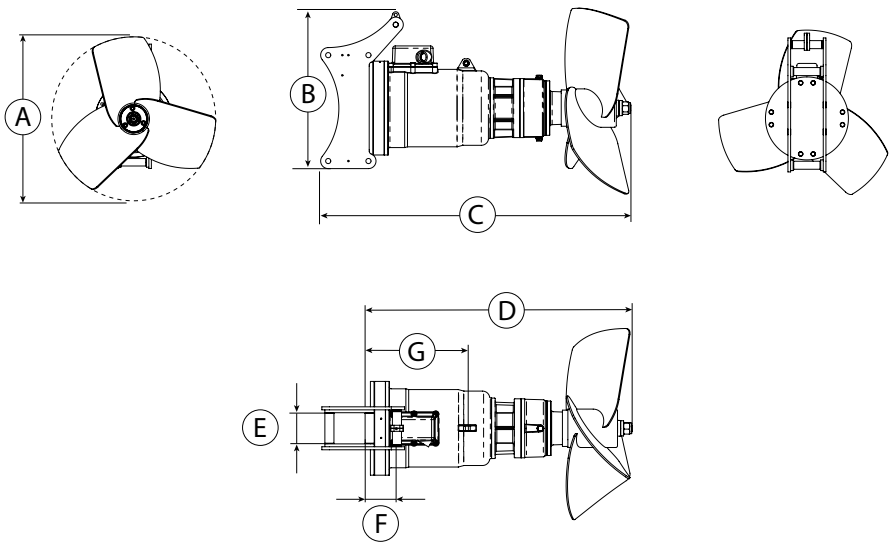
Bearing flange with mechanical seal SiC/SiC
2 tapered roller bearings to absorb the axial forces
Shaft of hardened steel
Bearing flange with separat oil chamber filled with Longlife gear oil
Accessory: POM protection to minimize abrasion

Ex-Zone

Authorized for Ex-Zone 2
ATEX Classification CE Ex II 3G Ex ec h IIA T3 Gc

Control box (optional)

Star-delta switch for 12 and 20 hp, soft start or frequency converter



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Dimensions

Type	A [Ø in]	B [in]	C [in]	D [in]	E [in]	F [in]	G [in]				
2G 40-220	25.2	20.5	42.8	35	3.2 / 3.9 / 4.7	4.1	12				
2G 40-305	21.3	20.5	41.3	35	3.2 / 3.9 / 4.7	4.1	12				
2G 90-330	25.2	20.5	42.8	35	3.2 / 3.9 / 4.7	4.1	11.8				
2G 90-460	19.7	20.5	41.3	33.5	3.2 / 3.9 / 4.7	4.1	11.8				
2G 110-330	27.6	20.5	43.3	35.5	3.9 / 4.7 / 5.9	4.1	13.2				
2G 110-460	21.3	20.5	43.3	35.5	3.9 / 4.7 / 5.9	4.1	13.2				
2G 150-460	21.3	20.5	43.3	35.5	3.9 / 4.7 / 5.9	4.1	13.2				

Technical data

Type	Rated Power [hp]	Frequency [Hz]	Gear reduction ratio	Propeller speed [rpm]	Propeller diameter [in]	Axial force [lbf]	Flow velocity [ft/s] *	Pumping rate [gal/min]	Weight approx. [lbs]			
2G 40-220	5.5	60	5.25	220	25.2	225	7.5	11,359	375			
2G 40-305	5.5	60	3.83	305	21.3	225	7.9	8,189	375			
2G 90-330	12	60	5.25	330	25.2	472	10.8	16,114	375			
2G 90-460	12	60	3.83	460	19.7	427	10.2	8,982	375			
2G 110-330	15	60	5.25	330	27.5				396			
2G 110-460	15	60	3.83	460	21.2				396			
2G 150-460	20	60	3.83	460	22.8	675	14.1	17,171	396			

Subject to technical changes
* measured in water and 3.94 ft distance
As per: 2023-08

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